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# Plant Pest News

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of Agriculture

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Inspection Service

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## NEW WESTERN HEMISPHERE RECORD

A new corn pest, corn cyst nematode, Heterodera zeae Koshy, Swarup, and Septi, was collected early in the week of February 25, 1981, in Kent County, Maryland, by L. Krusberg, University of Maryland, and M. Goff, Maryland Department of Agriculture. It was identified by A. M. Golden, Nematology Laboratory, Science and Education Administration (SEA). This nematode appeared to be widespread and in high numbers in 4 cornfields, totaling about 60 ha (150 acres).

According to Krusberg, corn cyst nematode surveys will begin in nearby areas, experimental plots with nematocides will be set up, cultivars will be checked for resistance, host range studies, and various studies on the biology of the nematode will be done this spring.

The Plant Importation and Technical Support Staff (PITSS) of Plant Protection and Quarantine (PPQ) recommended that the New Pest Advisory Group (NPAG) meet to make recommendations about this pest to the Deputy Administrator, PPQ, according to D. E. Barnett, Executive Secretary, NPAG.

Very little biological data on the corn cyst nematode is known according to W. H. Friedman, PPQ. The development stages and biology are similar to other species of Heterodera. In the laboratory at 24-30°C (75-86°F), the life cycle on corn was completed in 20 days after larval entry into the roots. Second stage larvae can emerge in water from white cysts. This nematode is not confined to a certain soil texture.

Available literature indicates Heterodera zeae may reproduce on Avena sativa

(common oat), Hordeum vulgare (barley), Sorghum bicolor (milo), Sorghum sudanense (sudangrass), Triticum aestivum (common wheat), and Zea mays (corn) (Oteifa 1973-1978). Other hosts include Digitaria longiflora (India crabgrass), Echinochloa colonum (junglerice), Panicum sp., Setaria italica (foxtail millet), and Urochloa panicoides var. panicoides (liverseed grass).

Limited host range studies in India indicate wheat, oats, barley, and two grasses to be poor hosts for Heterodera zeae. Despite the lack of published reports on this nematode, Indian workers consider this pest to be of economic importance on corn. Infected plants are stunted and frail in appearance with narrow leaves. Besides India, this pest has also been reported from Egypt and Pakistan.

## References

Oteifa, B. A. Nematode problems in new reclaimed irrigated lands of Egypt. Final Report, July 1, 1973 - June 30, 1978. Public Law 480 Programme. Available from: U.S. Dept. of Agriculture, Science and Education Administration, Beltsville, MD 20705.

Srivastava, A. N.; Swarup, G. Preliminary studies on some graminaceous plants for their susceptibility to the maize cyst nematode, Heterodera zeae Koshy et al., 1970. Indian J. Nematol. 5(2): 257-259; 1975.

Verma, A. C.; Yadav, B. S. Life history of Heterodera zeae on maize under Udai-pur conditions. Indian J. Mycol. and Plant Pathol. 5(1):19; 1975.

. New hosts of maize cyst nematode Heterodera zeae. Indian J. Mycol. and Plant Pathol. 8(1):72; 1978.







## SERIOUS EUROPEAN APPLE PEST NEW IN THE U.S.

A total of 25 apple sucker, Psylla mali (Schmidberger), adults was taken from apple (Malus sylvestris) leaves throughout an organically grown orchard at Camden, Knox County, Maine. R. Giroux, PPQ, made the collections on June 27, 1980. The specimens were recently identified by D. R. Miller, SEA, Insect Identification and Beneficial Insect Introduction Institute (IIBIII), Systematic Entomology Laboratory (SEL).

According to A. Gall, Extension Entomologist, Maine, no surveys or controls are planned for apple sucker. D. E. Barnett, Executive Secretary, New Pest Work Group (NPWG), says that PITSS recommends that the group meet to make proposals to the Deputy Administrator, PPQ, concerning this pest.

This species of Psyllidae is known in Asia, Australia, Canada, Europe, and USSR. This serious pest of apple in Europe has caused much concern in orchards in Nova Scotia and New Brunswick, Canada, in past years.

Psylla mali is known to feed on Malus sylvestris (apple), Prunus sp. (plum), and Cydonia oblonga (quince) are sometimes infested. To these hosts Sorbus aucuparia (European mountain-ash) should probably be added. Infestations cause shriveling of blossoms and yellowing and dropping of foliage.

### References

Anonymous. Apple sucker (Psylla mali Schmidberger). Coop. Econ. Insect Rep. 7(50):925-926; 1957.

Brittain, W. H. The European apple sucker. Province of Nova Scotia Dep. of Agric. Bull. 10:5-63; 1923.

### NEW NORTH AMERICAN RECORD

An acarid mite, Tyrophagus perniciosus Zakhvatkin, was collected feeding on cau-

liflower seedlings at Salinas, Monterey County, California, on October 22, 1980, by N. F. McCalley. The specimens were tentatively identified as "Tyrophagus sp. perniciosus or near" by T. Kono, Systematic Entomologist, California Department of Agriculture, Sacramento, and confirmed as this species by E. W. Baker, SEA, IIBIII, SEL.

Although this mite is considered a pest in California, no action is planned against it according to Kono. D. E. Barnett, Executive Secretary, NPWG, PPQ, said that NPWG will not meet to make recommendations concerning this pest to the Deputy Administrator, PPQ.

Tyrophagus species are generally stored food pests but can be found in farmyards, mosses, litter, humus and soil, higher fungi, roots of plants, and nests of mammals, birds, and social insects. Mites in this genus have been found on the aerial parts of higher plants where the mites actually were feeding on the tissues of the plants (Johnston and Bruce 1965). The distribution for Tyrophagus perniciosus includes Australia, Bulgaria, England, and USSR.

### Reference

Johnston, D. E.; Bruce, W. A. Tyrophagus neiswanderi, a new acarid mite of agricultural importance. Ohio Agricultural Research and Development Center, Wooster, Ohio, Res. Bull. 977; 1965.

### NEW U.S. DETECTION IN HIGH HAZARD AREA

E. R. Hoebeke, Cornell University, reported a chrysomelid beetle, Longitarsus luridus (Scopoli), was collected on beans in a garden at Amston, Tolland County, Connecticut, by W. M. Petrie on July 20, 1979. The only specimen collected (a male) was identified by Hoebeke and confirmed by R. E. White, SEA, IIBIII, SEL.

J. F. Anderson of the Connecticut Agriculture Experiment Station says no research is underway for Longitarsus luridus in the State. There has been a sur-







vey but not an extensive one. D. E. Barnett, Executive Secretary, NPWG, says that PITSS advises that there is no need for NPWG to meet and make recommendations to the Deputy Administrator, PPQ, concerning this chrysomelid beetle.

New to the U.S., Longitarsus luridus is native to Europe and is known from Newfoundland and Nova Scotia, Canada; North Africa; and Siberia. Host plant records are numerous and include the Boraginaceae, Lamiaceae, Asteraceae, and Plantaginaceae. It is not known to be economic in Europe.

#### SCIENTIFIC NAME CHANGE

The change of Entomophthora phytonomi Arthur to Zoophthora phytonomi (Arthur) has just come into use. Some time ago, Entomophthora Fresenius was divided.

A. Bakto explained this name change in his paper "On the new genera: Zoophthora gen. nov., Triplosporium (Thaxter) gen. nov. and Entomophaga gen. nov. (Phycomycetes: Entomophthoraceae)." Bull. de L'Academie Polonaise des Sciences 12(7): 323-326; 1964.

#### NEW INSECT DISEASE FOR KENTUCKY

An insect fungus, Zoophthora phytonomi, was collected for the first time in Kentucky during May 1978 in samples of Hypera postica, alfalfa weevil. P. E. Sloderbeck, Survey Entomologist, Kentucky, said infected larvae were collected from alfalfa near Lexington, Fayette County, and near Georgetown, Scott County, by B. C. Pass and J. C. Parr of the University of Kentucky. The fungus was identified by G. L. Nordin and confirmed by R. Soper, both of the University of Kentucky.

In 1979, Zoophthora phytonomi was found in alfalfa weevil larvae collected from alfalfa in the following counties for new county records: Barren, near Glasgow, on April 24; Green, near Greensburg, on April 24; both collected by Sloderbeck; and Caldwell, near Princeton, on April 27;

Hardin, near Elizabethtown, on April 27; Todd, near Elkton, on April 26; and Washington, near Springfield, on April 26; all collected by C. M. Christensen, University of Kentucky. Nordin made the confirmations based on the presence of conidial and/or resting spores.

#### NEW STATE RECORDS FOR GYPSY MOTH

One egg mass, one larval skin, and one pupal skin of the gypsy moth, Lymantria dispar, were collected on a house in Lincoln, Lancaster County, Nebraska, on November 17, 1980, by G. G. Rabe, PPQ, for a new State record. In Washington, a new State record was established when one larval skin and two pupal skins were collected on a prune tree in a pasture in Vancouver, Clark County, on November 20 by R. O. Rebhan and D. W. Keim, PPQ. Specimens were identified by D. M. Weisman, SEA, IIBIII, SEL.

#### AN AID TO IDENTIFYING SCOLYTIDAE

Bright, Donald E., Jr. The Insects and Arachnids of Canada Part 2, The Bark Beetles of Canada and Alaska, Coleoptera: Scolytidae. Canada Department of Agriculture; Ottawa, Ontario, Canada; 1976. 241 p. \$8.40.

Contents include 45 genera and 214 species, 200 pages of keys to genera and species of all scolytids known or suspected to occur in Canada and Alaska, 95 distribution maps, 172 scanning electron micrographs, summary of host records, a glossary, and 109 references.

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